

PENDING CLAIMS:

15. (Previously Presented) An electrically symmetric processing enclosure, comprising:

a chamber body defining an annular interior processing region, the annular processing region tapering towards a lower end;

an exhaust passage concentrically positioned in the lower end of the chamber body;

a cantilever mounted annular substrate support member affixed to the chamber body at a position above and concentric to the exhaust passage; and

a lid member disposed over an annular open top portion of the chamber body, the lid member having an energy transmitting dome made of a dielectric material, an energy delivery assembly, and a temperature control assembly mounted thereto.

16. (Previously Presented) The processing enclosure of claim 15, wherein the cantilevered mounted substrate support member comprises:

a base member having a flange extending therefrom, the flange being configured to attach to an interior surface of the chamber body and form a smooth surface therewith;

at least one cantilevered arm portion extending radially inward from the base member; and

a substrate receiving member mounted to a distal end of the at least one cantilevered arm portion, the substrate receiving member having an annular outer surface.

17. (Previously Presented) The processing enclosure of claim 16, wherein the annular outer surface defines an annular passage between the outer surface and the annular interior processing region.

18. (Previously Presented) The processing enclosure of claim 16, wherein the at least one cantilevered arm portion includes a substantially hollow interior portion configured to transmit fluids therethrough.
19. (Previously Presented) The processing enclosure of claim 15, wherein the energy transmitting dome comprises an cylindrical sidewall that is closed at a first end by a flat top, wherein the cylindrical sidewall is generally perpendicular to an upper surface of the substrate receiving member and the flat top is generally parallel to the upper surface.
20. (Previously Presented) The processing enclosure of claim 19, wherein a junction between the cylindrical sidewall and the flat top is rounded to provide a curvilinear inner wall of the energy transmitting dome.
21. (Previously Presented) The processing enclosure of claim 17, wherein the exhaust passage is concentrically positioned below the annular passage between the outer surface and the annular interior processing region and provides even gas flow through the annular passage.
22. (Previously Presented) The processing enclosure of claim 15, wherein the chamber body includes at least one entry port formed therein, the cantilever mounted substrate support member accessing the annular interior processing region via the at least one entry port.
23. (Previously Presented) An apparatus for processing substrates, comprising:
a chamber body having an annular inner sidewall portion and a bottom portion;
a pumping aperture positioned in a central location in the bottom portion, the pumping aperture being in fluid communication with a vacuum pump;
an annular substrate support member cantilever mounted to the sidewall portion, an outer perimeter of the annular substrate support member having a radius that is smaller than a radius of the annular sidewall portion; and

a lid member configured to close an open top portion of the chamber body, the lid member including a dome shaped upper portion made of a dielectric material configured to transmit energy therethrough.

24. (Previously Presented) The apparatus of claim 23, wherein the lid member further comprises an energy delivery assembly and a temperature control assembly mounted thereto.

25. (Previously Presented) The apparatus of claim 23, wherein the outer perimeter of the annular substrate support member and the annular inner sidewall cooperatively form an annularly shaped aperture therebetween.

26. (Previously Presented) The apparatus of claim 23, wherein the pumping aperture is concentrically positioned below the annular substrate support member.

27. (Previously Presented) The apparatus of claim 23, wherein the substrate support member comprises:

a base member having a flange extending therefrom, the flange being configured to attach to an interior surface of the chamber body and form a smooth surface therewith;

at least one cantilevered arm extending radially inward toward a central location in the chamber body from the base member; and

a disk shaped substrate receiving member affixed to a distal end of the at least one cantilevered arm portion, the substrate receiving member having an annular perimeter and a substantially planar upper substrate support surface.

28. (Previously Presented) The apparatus of claim 23, wherein the dome shaped upper portion comprises a cylindrical sidewall connecting to a top portion at a first end, wherein the cylindrical sidewall is perpendicular to an upper surface of the substrate support member.

29. (Previously Presented) The apparatus of claim 23, wherein the energy delivery system comprises at least one coil positioned proximate the dome shaped upper portion.

30. (Previously Presented) The apparatus of claim 23, wherein the chamber body includes a first entry port formed therein, the first entry port being configured to receive the cantilever mounted substrate support member therethrough.

31. (Previously Presented) The apparatus of claim 30, wherein the cantilever mounted substrate support member attaches to the chamber body in a manner that maintains a smooth arc shape on the annular inner sidewall.